

## PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

YOU ME PATENT AND LAW FIRM

Seolim Bldg., 649-10, Yoksam-dong, Kangnam-ku, Seoul  
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PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)



Date of mailing  
(day/month/year) 28 JUNE 2005 (28.06.2005)

Applicant's or agent's file reference  
OPP041948KR

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/KR2005/000615

International filing date (day/month/year)

04 MARCH 2005 (04.03.2005)

Priority date(day/month/year)

05 MARCH 2004 (05.03.2004)

International Patent Classification (IPC) or both national classification and IPC

IPC7 H04L 9/32

Applicant

Electronics and Telecommunications Research Institute et al

## 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.  
For further options, see Form PCT/ISA/220.

## 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/KR



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/KR2005/000615

**Box No. 1 Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
  
☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
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International application No.  
PCT/KR2005/000615

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims	1-45	YES
	Claims	None	NO
Inventive step (IS)	Claims	1-45	YES
	Claims	None	NO
Industrial applicability (IA)	Claims	1-45	YES
	Claims	None	NO

**2. Citations and explanations :**

Reference is made to the following documents:

D: IEEE Standard 802.16: A Technical Overview of the WirelessMAN Air Interface for Broadband Wireless Access

**1. Independent claims 1, 2, 21, 22, 31, 39 and 42**

D overviews the technical medium access control and physical layer features of IEEE Standard 802.16. But D does not disclose: a method for a base station to manage a traffic encryption key for encrypting traffic data for a multicast service or a broadcast service provided to a subscriber station in a wireless portable Internet system of claims 1 and 2; a method for a subscriber station to manage a traffic encryption key for decrypting traffic data for a multicast service or a broadcast service received from a base station in a wireless portable Internet system of claims 21 and 22; a method for configuring a protocol for managing a traffic encryption key for encryption or decryption of traffic data for a multicast service or a broadcast service transmitted and received between a subscriber station and a base station in a wireless portable Internet system of claim 31; an operation method of a traffic encryption key state machine provided to a subscriber station and used for the subscriber station to manage a traffic encryption key for decrypting traffic data received from a base station for a multicast service or a broadcast service of claim 39; and an operation method of a traffic encryption key state machine existing in a subscriber station and used for the subscriber station to manage a traffic encryption key for decrypting traffic data received from a base station for a multicast service or a broadcast service of claim 42.

So it is considered that independent claims 1, 21, 31, 39 and 41 relate to new and inventive subject-matter(Articles 33(2) and (3) PCT), since the prior art does not disclose or suggest the specifically claimed inventions.

The inventions of claims 1, 21, 31, 39 and 41 are industrially applicable.

**2. Dependent claims 3-20, 23-30, 32-38, 40, 41 and 43-45**

Dependent claims 3-20, 23-30, 32-38, 40, 41 and 43-45 satisfy the requirements for novelty and inventive step(Article 33(2) and (3) PCT).

The inventions of claims 3-20, 23-30, 32-38, 40, 41 and 43-45 are industrially applicable.